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25 YEAR RE-REVIEW

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c. Soviet tubes are not as good as American tubes, the weight of the various units is greater, and, in general 25X1 is inferior to the 1948 RCA model.

2. Based on these findings, 25X1 the Soviet television industry is at least five years behind that of the American industry. 25X1 the Soviets could bridge this gap in a very short time if they were thus determined. In the opinion of the Soviets they are not far behind other countries in the quality of the picture. It is the USSR's plan simply to have a television tube with a loudspeaker located in the home (similar to the usual Soviet loudspeaker) with a direct cable, in lieu of wireless, to the studio transmitter for receiving broadcasts. Vin Zeluff's article "Television Remote Viewer", in the December 1948 issue of Electronics describes such a viewer (which was developed in 1948). 25X1

3. The Soviets are attempting to develop their own color television system believe they will be the first in Europe to succeed. 25X1 the Soviets were working with a camera which employs a supericonoscope and a disc with three color filters; they were trying to adapt it to the image orthicon. At that time, however, the camera was so lacking in sensitivity that it was necessary for an individual being projected to be under an almost unbearable heat. The Soviets would like to copy other systems of color television but do not wish to spend money for that purpose. Since to their mind color television has no military use, the effort expended in that field is not intensive. The specifications for color television used in the USSR were not of Soviet derivation but had been obtained from foreign publications, eg, Parts I, II, and III of the September issue of IRE. The color television laboratory at Institute 380 was small and 25X1 no enlargement was contemplated.

4. The Soviets used the German type supericonoscopes until early 1952, at which time they began constructing their own supericonoscopes for both civilian and military use (the Soviet supericonoscope was called the super Emitron and was publicized as being of Soviet invention). The supericonoscopes allocated for civilian consumption are those which have been rejected for military use. about 20 supericonoscopes were constructed in 25X1 Leningrad monthly. They were also being constructed at Institute 160 near Moscow.

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5. [redacted] five image orthicon tubes at Institute 380; all were different. [redacted] were in the experimental stage [redacted] the Soviets are attempting to standardize them for production purposes. The RCA-23 image orthicon was the one most widely copied. "A New Image Orthicon", December 1949, RCA Review, proposes the RCA-5200 image orthicon but [redacted] this was not copied in the USSR. 25X1

6. [redacted] coax diameters for gas-filled cables (perhaps 185-200 ohms) [redacted] was replaced by a German 70-ohm cable with an outside diameter of 20 mm and made of Styroflex. This hydrogen gas-filled cable was used between the studio receiving equipment and the transmitter. (Gas-filled cables are described in "Optimum Coax Diameters for Gas-Filled Cables", Electronics, February 1950.) The Soviets did not use air- or gas-filled coax lines but rather used a solid coax for their studio equipment because it was old and impractical. This cable was manufactured at a factory in Moscow. [redacted] the Soviets were laying a coax cable between Leningrad and Moscow for television purposes. 25X1

7. [redacted] the transistor is not made in the USSR today.

8. [redacted] the USSR would like to develop a 6000 megacycle television relay system but cannot because of the lack of the necessary tubes. 25X1

9. More than half of the electronics engineers [redacted] in the USSR were females. [redacted] the higher echelon Soviet scientists are as capable as those in any other country. However, a lack of qualified engineers on the working levels exists in all fields. 25X1